DOCUMENT RESUME

ED 188 758 PS 011 517

AUTHOR Copple, Carol E.: And Others
TITLE The Emergence of Representational Awareness: An Examination of Children's Comments As They Draw.
PUB DATE Apr 80
NOTE 22p.: Paper presented at the Biennial Southeastern Conference on Human Development (6th, Alexandria, VA, April 1980).

EDRS PRICE MF01/PC01 Plus Postage.
DESCRIPTORS Classification: *Freehand Drawing: *Group Dynamics: *Perception: Perspective Taking: *Preschool Children: *Verbal Communication
IDENTIFIERS Flavell (J): *Representational Awareness

ABSTRACT

The purpose of this study is to identify dimensions of children's representational awareness as revealed by their verbalizations while drawing in a group situation. Subjects were 76 middle-class children in five preschool classes. Drawing sessions were audiotaped and observed by a non-participating adult who took notes and later transcribed the tapes. The experimenter provided children with magic markers and paper and talked with them about a familiar, experience-based topic which she asked them to draw. Initial data were gathered with the experimenter present in a small room adjacent to the classroom. To test for experimenter effects, subsequent data were collected in the classroom by placing a microphone on the table where the drawing materials were. Children's talk was categorized in terms of six features: (1) possibility/need for likeness: (2) possibility/limitation of drawings in conveying information: (3) possibility of exercising selection/discretion in drawing: (4) possibility of altering reality in drawing: (5) possibility of drawing objects or events in various states, forms or positions: and (6) difficulty of conveying certain aspects in drawing. The second category is discussed in detail in terms of Flavell's analysis of perspective-taking. Findings of this study suggest that children have considerable awareness of a variety of aspects of the nature of drawing. Examples of the children's comments are included. (Author/RH)

****
* Reproductions supplied by EDRS are the best that can be made *
* from the original document. *
****

U S DEPARTMENT OF HEALTH,
EDUCATION & WELFARE
NATIONAL INSTITUTE OF
EDUCATION

THIS DOCUMENT HAS BEEN REPRODUCED EXACTLY AS RECEIVED FROM THE PERSON OR ORGANIZATION ORIGINATING IT. POINTS OF VIEW OR OPINIONS STATED DO NOT NECESSARILY REPRESENT OFFICIAL NATIONAL INSTITUTE OF EDUCATION POSITION OR POLICY

ED188758

The Emergence of Representational Awareness: An Examination of Children's Comments as They Draw

Carol E. Copple
Rodney R. Cocking
Educational Testing Service

and

Barbara Waxman
University of Rochester

"PERMISSION TO REPRODUCE THIS MATERIAL HAS BEEN GRANTED BY
Carol E. Copple
TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)."

PS011517

Paper presented at Southeastern Conference on Human Development, Alexandria, Virginia, April 1980.

In the literature on children's drawings, comments have been made to the effect that for the young child the process of drawing is rather automatic or non-reflective. For example, Seefeldt in contrasting the adolescent artist with the young child says of the latter, "One would expect to find no such continuous and high level of discretionary activity among younger, more spontaneous artists. Rather, for these, the painting seems to roll off the fingertips" (1979). Naturally we would not quarrel with the assertion that adolescents have more and higher level reflections than younger children about the drawing task. However, our data provide evidence that the extent of "discretionary activity" in the young child's approach to drawing is greater than has been assumed. This deliberative aspect is already present in the preschool child's approach to drawing, and in fact seems to be quite prominent. Further, the content of young children's deliberations about drawing offer clues to other aspects of their cognitive development. We will consider some of these clues to cognition as we report portions of our data today.

The significance of children's art as a cognitive phenomenon has been recognized by numerous investigators in the past (Arnheim, 1969; Goodenough, 1926; Harris, 1963; Piaget & Inhelder, 1969). Goodnow (1977) has recently emphasized the problem-solving aspect of children's attempts to draw representationally. In looking at the emergence of a basic representational system, one dimension which is important for the developmental psychologist is the child's own understanding of the system or mode of representing. Numerous questions arise: What do children understand about the possibilities, the constraints, indeed the nature of the system? How consciously do they invent solutions to representational problems? Do they have standards which they struggle to attain in their drawings? Do they think of their drawings as capable of conveying information to others?

Ultimately, the developmental psychologist would address each of these questions in terms of change over time, attempting to describe the significant dimensions of development and the processes through which it takes place. We are at the first phase of such an undertaking, simply trying to describe the behavior of preschool children which has bearing on the questions about their understanding and awareness.

Cognitive and metacognitive questions of the kind noted above have not thus far been investigated to any great extent, partly because the focus of past research has generally been what the children drew rather than what they said or thought about their efforts. Drawings were often collected in situations that were not conducive to children's talking as they drew; in fact, verbalizations were rarely recorded. As investigations began to take place more often in naturalistic settings, such as the home (e.g., Fenson, 1977), and as more interactive procedures were introduced between the experimenter and the children (e.g., Golomb, 1974), investigators noticed that children said cognitively interesting things as they drew. In the present research, children drew with small groups of classmates, a context that seemed fertile for children's spontaneous verbalization about their efforts at representing objects and events.

We began collecting data in these group settings simply to expedite the gathering of drawings from children in two preschool programs using contrasting educational methods. At once we were struck by the quantity and nature of children's verbalizations as they drew in groups. At that point we were interested in several features of the commentary which were related to the kinds of classrooms the children were in, e.g., the degree and kinds of planning, the children's evaluation of their drawings (as evidence that

they had criteria for successful representation), the extent of reflective problem-solving. Quantitative analyses were carried out, looking at broad categories such as Planning and Evaluation with respect to age and program. These results are reported elsewhere (Cocking & Copple, 1979; Cocking & Copple, in press).

The interest in children's reflective and evaluative tendencies in the drawing process has remained with us, but we are in the process of refining and elaborating our consideration of such categories. Some of the commentary which we have observed appears related to dimensions of metacognition. Indeed, before the advent of what Frank Kessel (1979) calls "meta-this, meta-that, meta-the-other," we had been using the term "meta-pictorial" to refer to knowledge of the nature of drawing and to some kinds of self-monitoring in the drawing process. But now that virtually everyone is "meta-morphisizing," we have adopted the more down-to-earth term (?) representational awareness.

In general, by representational awareness we refer to the child's knowledge of the nature of pictorial representation and her awareness of her own struggles to adequately represent in drawing (and, at times, her awareness of the representational struggles, successes, and failures of others).

It is important not to lose sight of the fact that the children in our investigation were drawing and talking in a particular context. We do not see it as a case of the presence of others simply operating as a releaser for the overt verbalizing of a flow of inner speech or thought which would have been covert if the child were alone but otherwise would have been identical. There is a little more to it than that. Rather it is a matter of an interactive context with considerable complexity.

Method

At this point let us take a closer look at the procedure we used for collecting our data. The subjects were 76 middle-class children in five preschool classes. Drawing sessions were held at intervals of two to three weeks throughout the school year. The youngest child at the initial session was 3 years, 4 months. By the end of the year the oldest child was 5 years, 5 months.

The children were invited in groups of three or four to a small room adjacent to the classroom. The experimenter was a familiar adult. She provided the children with magic markers and paper and talked with them before they started about a topic which she asked them to draw. The topics were generally based on experiences which the children had recently had as a class, such as a trip to an orchard, or experiences which they had regularly, like snack time. In a few cases, children were presented with drawing topics like drawing someone picking up a ball or drawing a pond with a duck in the front and one in the back in order that we might see how they approached certain representational problems and how they talked about them.

An aside here, which we will return to later: Sometimes in what the experimenter said to the children she alluded to the fact that she had not been with them on the trip, didn't know what the orchard was like or what they had done there, or whatever. This was originally done to encourage the children to be as complete as possible and to try to draw things as they were (rather than going merrily off on a tangent, e.g., drawing Halloween night because there was a pumpkin at the orchard). Originally we were trying to give the children more or less the same objective for each session, that

of depicting as fully as they could a common experience in a common place. This is a difficult goal to attain with young children and our success with it was relative, but the procedure of stressing the adult's lack of familiarity with the setting and events to be depicted had some rather interesting results, which we shall see.

The sessions were audiotaped and observed by a non-participating adult who took notes (of who was speaking, etc.) and later transcribed the tapes. During the session, the experimenter encouraged the children to tell her what they had drawn. As much as possible, we tried to informally create an atmosphere in which children described what they were doing without intrusive questioning by the adult. We found that we were able to do this, by and large. In the first few sessions of the year, the experimenter would do more asking but this was less and less necessary. In addition, to assure ourselves that the kinds of commentary we were getting was not dependent on this adult "priming," we also gathered data in the classroom by simply placing a microphone on the table where the drawing materials were. Children said similar sorts of things and often talked a great deal. What our experimental setting seemed to do was increase the probability of a lot of verbalization taking place during drawing--but no higher level than was often found at the art table. As I give examples today, I will draw on both sets of data. While we recognize the difference in the contexts, the general points we will make today hold up across these situations, which have an important common element, the presence of peers.

Results

The first finding is a very simple one. It is that children have quite a lot to say about their drawings. There appears to be a spontaneous

tendency to comment in various ways on the effort to represent, with or without the presence of an encouraging adult. As mentioned before, we have been particularly interested in what children understand about the possibilities, the constraints, the nature of pictorial representation. At this point, we will turn to the data and try to give you an idea of some of the things children have shown us about their understanding of drawing and about their reflectiveness in approaching the drawing task.

Children's Understanding of the Nature of Drawing

Table 1, labeled "The Child's Understanding of the Nature of Drawing," includes examples of six categories, the first of which is Possibility/Need for Likeness. In one way or another in these verbalizations the child shows an awareness that a drawing is supposed to look like its referent: that there are standards of resembling, that one can fall short of the mark. This is perhaps the bedrock knowledge of what drawing is all about.

Insert Table 1 about here

Many, many verbalizations in the data can be seen as having this knowledge implicit in them, e.g., when a child critiques his own drawing or that of a peer. In Table 1 we have listed several examples, with a range of various sorts of comments which seem to reflect the knowledge that drawings are representational, that this representation is based on a created likeness or correspondence. In statements like, "I know how to make kids but not a playground," the children show that there are some representational tasks they do not feel equal to: I know how to make something that looks like a kid, but I don't know how to make something that looks like a playground.

When children make statements like these, they are showing, it seems to us, that they don't believe they can just draw anything and by calling it a

playground or a dress, achieve an adequate solution. Furthermore, they do not always have to wait until after they've failed to get a good likeness. They have some idea ahead of time (how accurate we don't yet know) of what representational problems--or at least what referents--do and do not lie within their current range. They identify the problems which are going to be tough.

The next set of verbalizations in Table 1 will be discussed in more detail after we give you an overview of what these categories include, so let's skip them for now.

The third set is labeled Possibility of Exercising Selection/Discretion in Drawing. Comments of this kind are not as common as some. The two major types within the category are (1) verbalizations which express the idea that there are different ways of drawing the same referent, as in the first example listed, and (2) comments which express the notion that you, the artist, can select from all the possible parts or features that which you want to draw.

A related type of comment can be seen in the next set of examples, Possibility of Altering Reality in Drawing. Here we see the idea that you can play with the elements of drawing--that you can add elevators, make McDonald's purple, make bald boys--even though you know that this is not the way things are in reality. Again, this is reminiscent of some of the deliberate playfulness with language which we see as children feel more able to manipulate the system. When children simply draw a boy with no hair, we cannot conclude that they are deliberately manipulating reality. But with a verbalization to that effect, we can see that the child draws something he knows is otherwise.

The next set of verbalizations are instances in which the child shows an awareness that X can be drawn in different transformations--happy vs. sad,

light rain vs. heavy, and so forth. Sometimes this idea may antedate the ability to actually create distinctive depictions of the state or expression or position of X. As Goodnow (1977) and others have noted, this is not just because of fine motor limitations. More importantly it is an issue of problem-solving in the pictorial medium. The child has to invent a way to show a mad duck or a light snowfall and his success at this may be far from dazzling. At the same time, however, we see from statements like this that the child may have the intention of drawing these and seems to realize that A' (e.g., a mad duck) would look different from A (a duck that isn't mad.

The last set of examples is quite a rare type in the preschool child, at least with the situation we were using. These instances are those where the child comments on some limit or problem imposed by the two-dimensionality of the page, or some other characteristic of the pictorial modality. In the first example the child is drawing a pig in profile. He draws the pig, including the half mouth as one sees it from the front and then turns his page over and draws the mirror image, making this comment. The child in the second example resigns himself to drawing only two wheels of the car, but feels it necessary to explain the situation to the adult. This set of comments might be expected to increase and change in content as children begin to deal with pictorial devices for showing perspective, and so forth. The preschool child is not yet tackling many of the problems of conveying three-dimensionality, so occasions where he reflects on the limitations of the flat page are relatively few.

Now, let us return for a closer look at one of the categories in the child's Understanding of the Nature of Drawing, the one which we skipped

before. Some examples are listed in Table 1 to complete the overview, but Table 2 provides a more detailed breakdown.

Representational Awareness: Drawing as Communication

In some of the children's verbalizations we can see an awareness of the fact that drawings can convey information to other persons. Let us look at some of the preliminary categories into which we have divided instances of this awareness of the communicative function of drawings which in some cases is an awareness of the "audience" or viewer of the picture.

The first set of examples in Table 2 appear to reflect children's knowledge that drawings can show what things look like to someone who is not familiar with the referent and they can permit the viewer to identify familiar objects or persons. A comment such as, "I'm gonna show you where they make the Egg McMuffins" indicates that this child knows he can communicate spatial information through the drawing, that he can inform someone who is in the dark about where Egg McMuffins are made. Similar comments can be seen in this set of examples [#1, #3, and #4]. Comments of this kind were more common when the referent, setting, or event was one the adult was unfamiliar with, particularly when it was emphasized at the start of the session that the adult did not know what the place or event was like.

These are interesting verbalizations from the point of view of perspective-taking. What is the child inferring? Is he taking the perspective of the other person who does not know what X looks like? As Flavell (1968) has noted, there are various components of fully developed perspective-taking. The kinds of statements we see here do not require all of the abilities Flavell describes. For example, we do not know if the children are considering

what features the viewer unfamiliar with the referent would find most informative, which Flavell would call prediction.

Insert Table 2 about here

Flavell describes another component ability, need, which refers to the child's ability to perceive that a particular situation is one that calls for perspective-taking. As Flavell notes, whether the child realizes this about a particular situation at a given developmental level is a function of how salient it is that the need exists in that situation. In some of the cases we observed, the adult mentioned explicitly to the child that she did not know what X looked like. With this type of flag to the children, we see what they appear to know: that when someone does not know what something looks like, you can help them by drawing it. Beyond this, the verbalizations in this set do not tell us much about the children's knowledge about drawings with respect to the anticipated viewers. Some of the other sets of comments fill in the picture a bit more.

In the next group, we see indication of the concept that the more complete or detailed a picture is, the better someone can tell what it depicts. Again, this is a fairly global idea--that the more you draw, the more the viewer can tell--the limits of which could be readily tested by experimental studies. For example, we could investigate whether children always judge more to be better in making predictions about picture interpretability. Or do they recognize that some features are likely to be more informative than others? (Parallel studies have appeared in the literature on communication in the verbal domain.) Here we simply see evidence of the notion that the more one puts in the drawing, or the more complete it is,

the easier it will be for the viewer to interpret it correctly.

There is a notion which implicitly accompanies the ones we have thus far examined: that the viewer can misidentify a picture. There are some comments, examples of which are listed on the second page of Table 2, that show an understanding that it might not be immediately obvious to everyone what the picture depicts. For example, one child commented, "This is not a church. Our house is this huge." This seems to be an idea that involves some perspective-taking. ("You might think this is a church because it's so big. But we have a very big house.")

As an extreme interpretation, one could argue that whenever children name an object, e.g., "This is a tree," "This is my Dad," they are showing they think the thing might not be identified unless it is labeled. But this is far too broad an interpretation. Children do lots of naming, particularly in this setting where the adult encourages them to tell her about their drawings. However, it might be interesting in a free play art situation to observe what things children spontaneously label, and perhaps how this interacts with listener. Does the child realize that others will have a more difficult time telling Dad from Uncle Bill than Dad from Mom or Dad from baby brother? These are questions which tap perspective-taking abilities and "representational awareness," or knowledge about the possibilities and limitations of pictorial representation; they can be investigated either observationally or experimentally. In our observations we did find a lot of labeling of persons and of things that seem hard to draw (actions, details which require skills beyond the child's level, referents that are inherently tricky to draw, like the wind).

It is worth noting that children may more often label these drawings not for the audience but for themselves. The function of an utterance may be for the self, to establish that this really is a walkie-talkie whether it looks like it or not. Such labeling seems to occur in symbolic object play and is probably operating to some extent here. Again, experimental studies could disentangle the communicative function from the for-the-self function.

We have been looking at comments which reveal an awareness that the viewer might not be able to identify one's drawing. The next set of examples in Table 2 may be seen as a special case of these, an awareness that a particular audience might have trouble interpreting the drawing, e.g., Dad might not know this is a bunny because he didn't see me draw it, the child seems to be saying. Another child mentioned that the kids in the morning group might not know what he had drawn because they didn't go to McDonald's. The second example listed in this set is a somewhat different situation taken from a classroom interaction in which a puppet named Mr. Forgetful did not know what a car looked like. The children spontaneously suggested drawing the car for the puppet instead of trying to describe it in words.

An awareness of the particular viewer's experience-base, or other viewer characteristics, would be a further differentiation within the perspective-taking dimension seen in the earlier sets of comments. This might be a promising aspect to follow developmentally, perhaps by having children make predictions about who could interpret what pictures.

Along with the utterances where the child seems to show that he knows others could fail to correctly identify his drawing, we have instances of

the opposite situation where the child realizes he may not be able to correctly read others' drawings. Children were found to frequently ask their peers what they were drawing. In other instances they made guesses about what was being drawn and asked the peer who drew it if they were right. There are cases also, of course, when the child perseverates in his own identification of a drawing despite the claims of the artist herself. But the behavior of turning to the artist as the one who knows what she is drawing is quite common. There are numerous cases when the child finds identification ambiguous and requests information from the individual who drew it. It seems quite plausible that this experience of confusion plays some role in the child's coming to know that his own drawings may not be clear.

A more direct connection which could be hypothesized to play a role in the development of awareness that the viewer could misinterpret is the experience of having someone else misinterpret or criticise one's own drawing. Children do frequently question each others' drawings and there are a variety of reactions from those who drew the pictures. Sometimes they defend their pictures, explaining why they have drawn as they have. Sometimes they modify their labels to correspond with the peer suggestion, as in the first example under the interactive episodes section of Table 2. Often they make changes or additions in the drawing itself. But in a large proportion of the cases where a peer questions or critiques a drawing, the child makes some active response. To what extent the child then begins to anticipate others' reactions as he draws cannot be judged from the current data, but it seems reasonable to suggest that children do develop more awareness of how others will react to their drawings partly through their experiences with others' reactions.

The verbal interactions in our data are intriguing from two points of view. They offer abundant manifestation of the understandings and types of representational awareness we have been discussing. It is also interesting to consider the role these verbal interchanges may play in the development of children's awareness of the nature of the drawing task. A comment of the type in Example #1 may play a feedback role in the child's drawing; it may also be an impetus to greater reflectiveness or awareness of the viewer. One could speculate on how children who never got comments on their drawings would differ in their reflectiveness about audience reactions and so forth. This is related to the question in verbal communication of how children's awareness of listener needs is affected by listener questions, misinterpretations, and other feedback.

For such a wealth of descriptive data, we have had to be highly selective in what we have reported today. We are at that point in the researching of an area where the territory is being described, the phenomena documented.

Our data suggest that children have considerable awareness of a variety of aspects of the nature of drawing. The verbal data provide some information about the cognitive content and process of children's engagement in the drawing task. Other evidence, which has not been the focus today, indicates that children talk about their own problem-solving efforts as they strive to solve representational problems. These data have given us a wealth of hypotheses to consider. As we add a developmental dimension to our investigation, which we are currently doing, and move in the direction of some experimental studies, we hope to be able to say more about the development and nature of children's awareness of their use of the representational system of drawing.

References

Arnheim, R. Visual thinking. Berkeley, Calif.: University of California Press, 1969.

Cocking, R. R., & Copple, C. Change through exposure to others: A study of children's verbalizations as they draw. In M. Poulsen & G. Lubin (Eds.), Piagetian Theory and the Helping Professions, Eighth Annual Conference, 1979.

Cocking, R. R., & Copple, C. Children's commentary while drawing in small groups: The growth of reflective and critical tendencies. Piagetian Theory and the Helping Professions, in press.

Fenson, L. The structure of one child's art from ages three to four. Unpublished manuscript, San Diego State University, 1977.

Flavell, J. H., Botkin, P. T., Fry, C. C., Wright, J. W., & Jarvis, P. E. The development of role taking and communication skills in children. New York: Wiley, 1968.

Golomb, C. Young children's sculpture and drawing: A study in representational development. Cambridge, Mass.: Harvard University Press, 1974.

Goodenough, F. L. Measurement of intelligence by drawings. New York: Harcourt, Brace & World, 1926.

Goodnow, J. Children drawing. Cambridge, Mass.: Harvard University Press, 1977.

Harris, D. R. Children's drawings as measures of intellectual maturity. New York: Harcourt, Brace & World, 1963.

Kessel, F. Meta-this, meta-that, meta-the-other. Paper presented at the at the Biennial Meeting of the Society for Research in Child Development, San Francisco, March 1979.

Piaget, J., & Inhelder, B. The psychology of the child. London: Routledge, 1969.

Seefeldt, F. M. The formal operator: Formal operations and adolescent painting. The Genetic Epistemologist, 1979, VIII, 5-6.

Table 1

THE CHILD'S UNDERSTANDING OF THE NATURE OF DRAWING

Possibility/Need for Likeness

1. "Hey, you have to do hands like that. Look, I'll show you." (Instructing peer on achieving likeness)

2. "That's not how big airplanes are [to peer]. They're bigger than that. I'm making mine bigger than yours." (Critiquing peer likeness)

3. "Are mustaches up here or down there [above or below the mouth; asking E] (Soliciting information in order to achieve likeness)

4. "I'm not finished with mine yet. What did I forget? The body and the neck." (Reflecting on completeness/accuracy of likeness)

5. "I know how to make kids but not a playground." ('Knowledge of not knowing' how to create the likeness)

6. "It's going to be hard to draw my dress." (Knowledge of difficulty of creating the likeness)

Possibility/Limitation of Drawings in Conveying Information

1. "Guess what this is?" (Recognizing possibility of conveying information)

2. "I'm gonna draw a house to show you how the McDonald's looked." (")

3. "I'm gonna put my house on it so Colleen will know how my house looks."(")

4. "This is not a church. Our house is this huge." (Recognizing possibility of misinterpretation)

5. "These are not the eyes [in picture of Halloween mask] These are the puffs." (Recognizing possibility of misinterpretation)

6. "I'm gonna put an 'M' so they'll know it's McDonald's." (Recognizing possibility of misinterpretation)

Possibility of Exercising Selection/Discretion in Drawing

1. "Now I'm making a real bad storm but I'm not going to do it like Henry's." (Recognizing that there are different ways of drawing X)

2. "You don't have to make everything." (Recognizing the possibility of selection in drawing)

3. "I'm not gonna make all the rugs. I'm just gonna make some of it." (Recognizing the possibility of selection/discretion)

4. "I think I'll get a darker color for my dress." (Recognizing the pssibility of selection/discretion)

Table 1 (Continued)

Possibility of Altering Reality in Drawing

1. [In response to peer suggestion of making her McDonald's purple] "It's not funny. You can do that. It doesn't matter what color you make it."

2. "I'm going to make the elevator. There's no elevator there, but I want to make one."

3. "That's black 'cause that's how I want McDonald's to look."

4. "Now I'm going to make a black boy. Guess what? Girls have hair and boys have hair, but I'm making a boy that's bald. No hair at all, but a little, I guess."

Possibility of Drawing Objects or Events in Various States, Forms, or Positions

1. "That's when the snow is just falling. So we'll put a little grass in 'cause that's when the snow is just falling."

2. "Now, I'm going to make Kathy. She's going to be happy in this one."

3. "No, I'm not making that kind of duck [duck in the air]. I'm making a mad duck."

4. [In reaction to peer saying he was drawing a rain storm] "I'm gonna make mine only be sprinkling."

Difficulty of Conveying Certain Aspects in Drawing

1. [Child draws on the back of his page the mirror-image of the pig he has drawn on the front] "Here's the mouth. The other part is in the back. I did the other part in the back."

2. "You can only see two wheels [of a car]. The other two are on the other side."

Table 2

REPRESENTATIONAL AWARENESS: AUDIENCE

Drawing can show what things look like to someone who doesn't know:

1. H: That's to show you where the plant at McDonald's is.

2. J: I'm gonna show you where they make the Egg McMuffins And this is what you call an egg ring.

3. R: I'm gonna draw a house -- to show you how the McDonald's looked.

4. L: I'm gonna put my house on it so Colleen can know what my house looks like.

5. C: I'm gonna put some hair on him so nobody will know who it is, not even Colleen [plans to disguise his person because otherwise he can be identified by audience]

The more you add to your drawing, the likelier the other is to identify it correctly

1. C: What do you think I'm going to make? [to adult]
   E: Oh, let's see. It has 2 eyes. Gee, let's see. Mike, do you have an idea what it could be? [Mike doesn't respond]
   C: Adding something else.

2. [After peers have guessed incorrectly what his drawing is, adds more]
   M: Now guess what it is.

3. D: [to S]: What are you making?
   S: You'll see when I'm done.
   D: Is it a train with all these wheels?
   S: No, it couldn't be that. You'll see. Just wait. You'll see.
   D: It looks like a train, on a track.
   S: See? Now it doesn't look like a train.

4. S: What do you suppose this is?
   D: A gate?
   S: Guess again.
   D: I don't know what it is. I give up.
   S: It's a pencil.
   D: It doesn't look like a pencil.
   S: It will! It will!

5. T: [after some guesses of whom he is drawing] No, try to guess again. Not now, when I'm done.
   C: It will be easier.

Table 2 (Continued)

Drawings can fail to convey information accurately, can be misinterpreted

1. T: This is not a church. Our house is this huge.

2. J: These are not the eyes [on Halloween mask in drawing] These are the puffs (?)

3. K: I'm going to put an 'M' so they'll know it's McDonald's.

4. C: And this is supposed to be a squirrel sticking his head out here.

The particular viewer makes a difference in feasibility of identification of drawing
(Corollary: you draw differently depending on the viewer)

1. C: I don't know if it looks too much like a bunny to my Dad, but I do know if it looks too much like a bunny to Jude [peer who was present during the drawing of the bunny].

2. H: [drawing a car for a puppet who doesn't know what cars look like] Here, I'll show you how it looks different from a bus. It's longer.

Interactive episodes with salient audience reaction

1. A: [to T about her drawing] Oh, that ball doesn't look very good in drawing it.
   T: So, it could be a ball.
   A: Well, it doesn't look rounded up.
   T: No, this is an egg I'm making. An egg, that is the shape of an egg.

2. M: I'm making you, Kay. Thea, Im making Kay.
   D: That isn't Kay. It looks like a boy.
   M: It's Kay because you notice the brown hair.

3. T: Your 'goon' is lying down.
   M: Nope, standing up. That's how a goon looks like. Its legs are crossing that way.

4. M: [about T's drawing] I think it's a spider.
   T: You're right!
   M: I knew it was a spider!
   E: What about it made you think it was a spider?
   M: The legs... All the legs.